

**REMARKS**

**STATUS OF CLAIMS**

Claims 1-4, 6-11, 13, 15-16, 18-24, 26, 28, 30-31, 33-35, 37, 39-40, and 42-44 are pending. Claims 5, 12, 14, 17, 25, 27, 29, 32, 36, 38, and 41 have been cancelled. Claims 2-3, 6, 8-10, 18-19, 21-24, 34-35, and 42-44 have been amended to correct typographical errors. Claims 1, 11, 20, and 33 have been amended to further define the lubricant additive. Support for this amendment can be found in the originally filed specification, for example on page 8, line 29 to page 10, lines 12-20, and original claims 5, 12, 14, 17, 25, 27, 29, 32, 36, 38, and 41. No new matter has been added.

**A. REJECTIONS UNDER § 112**

The Examiner has rejected claims 5, 6, 12, 14, 17, 27, 29, 32, 36, 38, and 41 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner has argued that claim 6 refers to the "polymerization product" of claim 1 without an antecedent basis for such product in claim 1. Presently amended claim 1 now recites a polymerization product derived from a reaction mixture comprising a raffinate I stream and isobutylene, thereby providing an antecedent basis for claim 6.

The Examiner has also argued that it is not clear in claims 5, 12, 14, 17, 27, 29, 32, 36, 38, and 41 "whether the 35-45 wt.% isobutylene includes the isobutylene in the raffinate I stream, or is a separate component." See page 2 of the Office Action. In light of the present claim amendments, claims 5, 12, 14, 17, 27, 29, 32, 36, and 38 have been cancelled, and the subject matters thereof have been incorporated into

independent claims 1, 11, 20, and 33, which recite a polymerization product derived from a reaction mixture comprising (a) from about 55 to 56 weight percent raffinate I stream and (b) from about 35 to about 45 weight percent isobutylene.

Applicants respectfully submit that the presently claimed invention particularly points out and distinctly claims the subject matter which Applicants regard as their invention, in accordance with 35 U.S.C. § 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

**B. REJECTIONS UNDER § 102**

The Examiner has rejected claims 1-3 and 8-10 under 35 U.S.C. § 102(b) as being anticipated by GB 2,048,935 to Crawford ("Crawford"). Applicants note that the Examiner has not rejected claim 5, which disclosed a polymerization product derived from a reaction mixture comprising from about 55 to about 65 weight percent raffinate I stream and from about 35 to about 45 weight percent isobutylene. Independent claim 1 has been amended to incorporate the subject matter of non-rejected claim 5. Therefore, *Crawford* does not anticipate the present invention. Applicants respectfully request reconsideration and withdrawal of the rejection.

**C. REJECTIONS UNDER § 103(a)**

1. Crawford in view of U.S. Patent No. 5,652,001

The Examiner has rejected claims 1, 7, 11, 13, 15-16, and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of U.S. Patent No. 5,652,001 to Papay ("Papay"). See page 5 of the Office Action. Applicants note that the Examiner has not rejected original claims 5 and 12, the subject matters of which have been incorporated into independent claims 1 and 11, respectively. Specifically, original

claims 5 and 12 teach a polymerization product derived from a reaction mixture comprising from about 55 to about 65 weight percent raffinate I stream and from about 35 to about 45 weight percent isobutylene. Claims 7, 13, 15-16, and 18-19 depend from independent claims 1 and 11, and are patentable for the same reasons. Therefore, this rejection is now moot. Applicants respectfully request reconsideration and withdrawal of the rejection.

2. Crawford in view of U.S. Patent No. 5,888,947

The Examiner has rejected claims 20-23 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of U.S. Patent No. 5,888,947 to Lambert ("Lambert"). See page 7 of the Office Action. Applicants note that the Examiner has not rejected original claims 25 and 27, the subject matters of which have been incorporated into independent claim 20. Claims 21-23 depend from independent claim 20 and are patentable for the same reasons. For at least this reason, this rejection is now moot. Applicants respectfully request reconsideration and withdrawal of the rejection.

3. Crawford in view of Lambert in view of U.S. Patent No. 6,427,647

The Examiner has rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Lambert* and further in view of U.S. Patent No. 6,427,647 to Galka ("Galka"). See page 8 of the Office Action. As discussed above, claim 23 depends from independent claim 20 and is patentable for the same reasons as claim 20. Moreover, *Galka* does not overcome the deficiencies of *Crawford* and *Lambert* for the same reasons. Therefore, the present invention is not obvious in light of *Crawford* in view of *Lambert* and further in view of *Galka*. Applicants respectfully request reconsideration and withdrawal of the rejection.

4. Crawford in view of Lambert in view of U.S. Patent No. 3,653,273

The Examiner has rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Lambert* and further in view of U.S. Patent No. 3,653,273 to Albertson ("Albertson"). See pages 8-9 of the Office Action. Claim 24 depends from independent claim 20 and is patentable for the same reasons discussed above. Moreover, *Albertson* does not overcome the deficiencies of *Crawford* and *Lambert* for the same reasons. Therefore, the present invention is not obvious in light of *Crawford* in view of *Lambert* and further in view of *Albertson*. Applicants respectfully request reconsideration and withdrawal of the rejection.

5. Crawford in view of Papay in view of Lambert

The Examiner has rejected claims 25-26, 28, 30-31, 33-35, 37, 39-40, and 42-44 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* and further in view of *Lambert*. See page 9 of the Office Action. Claim 25 has been cancelled, thereby rendering its rejection moot. Claims 26, 28, and 30-31 depend from independent claim 20 and are patentable for the same reasons, as discussed above. Moreover, *Lambert* does not overcome the deficiencies of *Crawford* and *Papay* for the same reasons.

Applicants also note that the Examiner has not rejected original claim 36, the subject matter of which has been incorporated into independent claim 33. Claims 34-35, 37, 39-40, and 42-44 depend from independent claim 33 and are patentable for the same reasons as claim 33. Therefore, the present invention is not obvious in light of *Crawford* in view of *Papay* and further in view of *Lambert*. Applicants respectfully request reconsideration and withdrawal of the rejection.

6. Crawford in view of Papay in view of Lambert in view of Galka

The Examiner has rejected claims 25-26, 28, and 30-31 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Lambert* and further in view of *Galka*. See page 10 of the Office Action. Claim 25 has been cancelled, thereby rendering its rejection moot. Claims 26, 28, and 30-31 depend from independent claim 20 and are patentable for the same reasons discussed above. Moreover, *Galka* does not overcome the deficiencies of *Crawford*, *Papay*, and *Lambert* for the same reasons. Therefore, the present invention is not obvious in light of *Crawford* in view of *Papay* further in view of *Lambert* and further in view of *Galka*. Applicants respectfully request reconsideration and withdrawal of the rejection.

7. Crawford in view of U.S. Patent No. 4,605,808

The Examiner has rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of U.S. Patent No. 4,605,808 to Samson ("Samson"). See page 11 of the Office Action. Claim 5 has been cancelled, thereby rendering its rejection moot. Claim 4 depends from independent claim 1 and is patentable for the same reasons, as discussed above. Presently amended claim 1 claims a hydrocarbyl substituent comprising a polymerization product derived from a reaction mixture comprising (a) from about 55 to about 65 weight percent raffinate I stream and (b) from about 35 to about 45 weight percent isobutylene. Accordingly, the present invention is not obvious in light of *Crawford* and *Samson*. Applicants respectfully request reconsideration and withdrawal of the rejection.

8. Crawford in view of Papay in view of Samson

The Examiner has rejected claims 12, 14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* and further in view of *Samson*. See page 12 of the Office Action. Claims 12, 14, and 17 have been cancelled, thereby rendering this rejection moot.

9. Crawford in view of Papay in view of Lambert in view of Samson

The Examiner has rejected claims 27, 29, 32, 36, 38, and 41 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Lambert* and further in view of *Samson*. See *id.* at page 14. Claims 27, 29, 32, 36, 38, and 41 have been cancelled, thereby rendering this rejection moot.

10. Crawford in view of Papay in view of Lambert in view of Samson in view of Galka

The Examiner has rejected claims 27, 29, and 32 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Lambert* in view of *Samson* and further in view of *Galka*. See *id.* at page 15. Claims 27, 29, and 32 have been cancelled, thereby rendering this rejection moot.

11. Crawford in view of U.S. Patent No. 6,300,444

The Examiner has rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of U.S. Patent No. 6,300,444 to Tokumoto ("Tokumoto"). See *id.* at page 16. Claim 5 has been cancelled, thereby rendering its rejection moot. Claim 4 depends from independent claim 1 and is patentable for the same reasons, as discussed above. Accordingly, the present invention is not obvious in light of *Crawford* and *Tokumoto*. Applicants respectfully request reconsideration and withdrawal of the rejection.

12. Crawford in view of Papay in view of Tokumoto

The Examiner has rejected claims 12, 14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* and further in view of *Tokumoto*. See page 16 of the Office Action. Claims 12, 14, and 17 have been cancelled, thereby rendering this rejection moot.

13. Crawford in view of Papay in view of Lambert in view of Tokumoto

The Examiner has rejected claims 27, 29, 32, 36, 38, and 41 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Lambert* and further in view of *Tokumoto*. See page 18 of the Office Action. Claims 27, 29, 32, 36, 38, and 41 have been cancelled, thereby rendering this rejection moot.

14. Crawford in view of Papay in view of Lambert in view of Samson in view of Galka

The Examiner has rejected claims 27, 29, and 32 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Lambert* in view of *Samson* and further in view of *Galka*. See page 20 of the Office Action. Claims 27, 29, and 32 have been cancelled, thereby rendering this rejection moot.

15. Crawford in view of Papay in view of Samson in view of U.S. Patent No. 4,971,711

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* further in view of *Samson* and further in view of U.S. Patent No., 4,971,711 to Lundberg ("Lundberg"). See *id.* at page 20. Claim 6 depends from independent claim 1 and is patentable for the same reasons as discussed above. Moreover, *Lundberg* does not overcome the deficiencies in the

combination of *Crawford*, *Papay*, and *Samson*. Applicants respectfully request reconsideration and withdrawal of the rejection.

16. Crawford in view of Papay in view of Tokumoto in view of Lundberg

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Tokumoto* and further in view of *Lundberg*. See *id.* at page 21. For the same reasons as discussed above, claim 6 is not obvious in light of the combination of *Crawford*, *Papay*, and *Tokumoto*. Moreover, *Lundberg* does not overcome the deficiencies of *Crawford*, *Papay*, and *Tokumoto* for the same reasons as discussed above. Applicants respectfully request reconsideration and withdrawal of the rejection.

**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 50-2961.

Respectfully submitted,

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By: \_\_\_\_\_



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